22. (Twice Amended) A method for manufacturing a catalyst member comprising:

first, providing an open carrier substrate comprising a body containing gas flow passages that define a flow path of a fluid through the substrate, and then depositing by electric arc spraying a metal feedstock onto the substrate to provide a metal anchor layer on the substrate, and

depositing a catalytic material onto the anchor layer, which catalytic material is located so that a fluid stream flowed through the catalyst member makes contact with the deposited catalytic material.

D3

23. (Twice Amended) The method of any one of claims 22, 27 or 40, including carrying out the electric arc spraying from a sprayhead, and wherein the substrate has an obscured surface area defined by portions of the substrate which are obscured relative to a line of sight from the sprayhead, and providing the metal anchor layer on at least a portion of the obscured surface area.

D4

24. (Amended) The method of claim 22 wherein depositing the catalytic material comprises coating the metal anchor layer with a catalytic material comprising a refractory metal oxide support on which one or more catalytic components are dispersed.

D5

27. (Twice Amended) A method for manufacturing a catalyst member comprising:

first, providing at least one open carrier substrate comprising a body containing gas flow passages that define a flow path of a fluid through the substrate, and then electric arc spraying a metal feedstock onto the substrate to provide at least one substrate having an anchor layer coated thereon;

depositing onto the anchor layer a catalytic material comprised of a bulk refractory metal oxide having dispersed thereon one or more catalytically active components to provide at least one catalyzed substrate, the catalytic material being located so that a fluid stream flowed through the catalyst member makes contact with the deposited catalytic material; and

incorporating the at least one catalyzed substrate into a body configured to define an inlet opening and an outlet opening and so configuring and disposing the at least one catalyzed substrate between the inlet and outlet openings to define a plurality of fluid flow paths therebetween.

46. (Amended) A method for manufacturing a catalyst member comprising:

first, providing a monolithic honeycomb carrier substrate having a plurality of gas flow passages extending therethrough from an inlet face to an outlet face of the carrier, the passages being defined by walls, and then depositing a metal feedstock by electric arc spraying onto the walls of the passages of the carrier substrate to provide a metal anchor layer thereon; and

depositing a catalytic material onto the anchor layer.

D6

47. (Amended) A method for manufacturing a catalyst member comprising:

first, providing a monolithic honeycomb carrier substrate having a plurality of gas flow passages extending therethrough from an inlet face to an outlet face of the carrier, the passages being defined by walls, and then depositing a metal feedstock by electric arc spraying onto the walls of the passages to provide a metal anchor layer thereon;

depositing onto the anchor layer a catalytic material comprised of a bulk refractory metal oxide having dispersed thereon one or more catalytically active components to provide at least one catalyzed substrate; and

incorporating the at least one catalyzed substrate into a body configured to define an inlet opening and an outlet opening and so configuring and disposing the at least one catalyzed substrate between the inlet and outlet openings to define a plurality of fluid flow paths therebetween.

Add the following new claims.

48. The method of claim 46 or claim 47 wherein the carrier substrate has from about 60 to about 700 gas flow passages per square inch of the inlet face.

D7

49. The method of claim 48 wherein the carrier substrate has from 200 to 400 gas flow passages per square inch of the inlet face.

50. The method of claim 23 wherein depositing the catalytic material comprises coating the metal anchor layer with a catalytic material comprising a refractory metal oxide support on which one or more catalytic components are dispersed.

51. The method of claim 40 further including enclosing the pliable substrate fully within the mounting container.

52. The method of claim 51 including depositing the catalytic material onto the anchor layer prior to enclosing the pliable substrate fully within the mounting container.

53. The method of claim 51 wherein the mounting container has an interior which is dimensioned and configured relative to the dimensions of the pliable substrate whereby enclosing the pliable substrate fully within the mounting container compresses the pliable substrate and retains it in compressive contact with the mounting container.

54. The method of claim 53 wherein the interior of the mounting container and the pliable substrate are each cylindrical and the interior of the mounting container has a diameter which is less than the diameter of the pliable substrate by an amount which results in a reduction of the diameter of the pliable substrate upon full enclosure thereof within the mounting container, the reduction being from about one to three percent of the uncompressed diameter of the pliable substrate.

55. The method of any one of claims 51, 52, 53 or 54 wherein depositing the anchor layer comprises thermally spraying a metal feedstock onto the substrate.

56. The method of any one of claims 51, 52, 53 or 54 wherein depositing the anchor layer comprises electric arc spraying a metal feedstock onto the substrate.

REMARKS

I. Prefatory

Broad Aspects of the Claimed Invention

Before discussing the office action, it may be useful to describe the broad aspects of the present invention, of which there are two, as defined in the rejected claims.